SUBJECT INDEX

A

Accelerator Mass Spectrometry (AMS)
  Pt-group metals, analysis *in situ*, 55(8): 2241
Acetate
  complexation, cations, 55(4):955
Achondrites
  Antarctic vs. non-Antarctic, 55(1):35
  Pu-Xe, gas retention ages, (55)10:2957
  thermoluminescence, 55(12):3831
  ureilites, petrogenesis, 55(12):3417
Activity coefficient
  ion pairs, electrolyte solution, supercritical, 55(5):1235
  Ni, basalt melt, 55(10):2831
Adsorption
  see also: Sorption
  seawater, particulates, 55(11):3223
Alaska, USA
  Blackburn Hills volcanic field, 55(12): 3753
Albite
  diffusion, Rb, Sr, 55(5):1331
  dissolution, surface speciation, 55(8): 2193,(11):3273
  Pb, isotopic heterogeneity, 55(8):2309
  thermodynamic parameters, 300–600°C, 55(4):989
Alcohol
  coastal sediment, Peru, 55(2):483
Algae
  Gloeocapsomorpha prisca, kerogen, Ordovician, 55(1):275
  kerogen, origin of, 55(4):1041
ALHA81005, lunar meteorite
  cosmogenic radionuclides, 55(11):3149, 3157
Allende, carbonaceous chondrite
  Al-Mg isotope systematics, inclusions, 55(4):1083
  fassaite, type B inclusions, 55(9):2635
  noble gases, residue, acid resistant, 55(6): 1709
  Rb-Sr dating, inclusions, 55(4):1083
  type B refractory inclusions, 55(9):2635
Alps
  fluids, thrusting, chemical and isotopic composition, 55(4):1021
Aluminum
  Al(III), complexation, goethite, 55(12): 3639
  complexation, acetate, 55(4):955
  dissolved, North Atlantic deep water, 55(10):2745
  solubility, Al-hydroxide, 55(3873):12: 3873,3875
^{26}Al
  exposure ages, Antarctic moraines, 55(8): 2269
  lunar meteorites, 55(11):3149,3157
  Meteor Crater, Arizona, age, 55(9):2699
Alunite
  Yilgarn Block, Western Australia, 55(5): 1273
Amino acid
  diagenesis, 55(6):1649
  racemization, effect of melanoidins, 55(12):3669
  racemization, epimerization, snail shells, 55(4):293
  racemization/epimerization, kinetics, 55(11):3355
Ammonium
  granite, Tuscany, Italy, 55(12):3657
Analytical Electron Microscope (AEM)
  diagenesis, volcanics, Abert Lake, Oregon, 55(10):2795
Anglesite
  dissolution kinetics, 55(12):3531
Angra dos Reis, achondrite
  noble gases, isotope composition, 55(10): 2957
Anorthosite
  Maloin Ranch pluton, Wyoming, 55(8): 2285
Antarctica
  achondrites, Antarctic vs. non-Antarctic, 55(1):35
  ALHA81005, cosmogenic radionuclides, 55(11):3149
  Antarctic Peninsula, trace metals, aerosol, 55(7):1827
  exposure ages, ^{10}Be and ^{26}Al, moraines, 55(8):2269
  MacAlpine Hills, lunar meteorite, 55(9): 2681, (11):2999–3180
  MAC88104/5, cosmogenic radionuclides, 55(11):3149
  meteorites, C, isotope composition, 55(1): 49
  meteorites, differences, non-Antarctic, 55(1):3, 99
  meteorites, eucrites, trace elements, 55(1): 77
  meteorites, lunar, Y793274, 55(4):1193
  meteorites, mass distribution, 55(1):105
  meteorites, noble gases, 55(1):59
  meteorites, thermal histories, 55(4):1193
  meteorites, trace elements, 55(1):19
  meteorites, weathering, 55(1):67, 89
  Yamato Mountains, lunar meteorites, 55(11):3009
  Y791197, lunar meteorite, cosmogenic radionuclide, 55(11):3149
  Y793274, lunar meteorite, cosmogenic radionuclides, 55(11):3149
Apatite
  diffusion, Pb, 55(6):1663
  fission tracks, annealing, 55(5):1449
  growth, fluorapatite, modified seawater, 55(5):1219
Apollo 14
  ^{40}Ar/^{39}Ar dating, rocks, 55(8):2339
Apollo 16
  regolith, impact glass, 55(11):3019
Apollo 17
  basalt, Sr and Nd, isotopic composition, 55(7):2025
Aragonite
  Sr, isotope diagenesis, 55(2):505
Aravalli Supergroup, India
  barite, stratiform, Precambrian, 55(1):303
Argentina
  Rodeo de los Molles, ore deposit, 55(7): 2063, 2065
Argon
  diffusion, alkali feldspar, 55(5):1435
  diffusion, glass, 55(1):211
  impact glasses, 55(10):2951
  solubility, glass, 55(1):211
^{40}Ar/^{39}Ar dating
  alkali feldspar, diffusion domains, 55(5): 1435
  Apollo 14 rocks, 55(8):2339
  biotite, laser and conventional, 55(6):1675
  K-feldspar overgrowths, 55(12):3777
  sedimentary rocks, Barberton greenstone belt, South Africa, 55(7):1933
Arizona
  Meteor Crater, age, 55(9):2695, 2699
Atlantic Ocean
  deep water, North Atlantic, 55(10):2745
  Sargasso Sea, Ce anomaly, 55(10):2981
  TAG site, Mn and CH_4, 55(11):3209
Atmosphere
  dust, geochemistry, 55(8):2147
  trace metals, aerosol, Antarctic Peninsula, 55(7):1827
Australia
  saline lakes, B isotope geochemistry, 55(9):2591

B

Barite
  dissolution kinetics, 55(12):3531
  stratiform, Precambrian, India, isotope composition, 55(1):303
Barium
  distribution coefficient, plagioclase, 55(1): 193
  foraminifera, 55(11):3321
Barringerite
  lunar meteorite, Y793274, 55(4):1173
Basalt
  boninites, Mariana Forearc, 55(5):1467
  carbonaceous matter, 55(5):1345
  CO_2, solubility, 55(6):1587, (11):3467
  Os, isotope composition, 55(5):1425
  petrogenesis, Siberia, 55(4):1183
  U-series nuclides, Kilauea, Hawaii, 55(12):3735
  volatile elements, Woodlark Basin, Pacific, 55(8):2231
Beaufort Sea shelf, Canada
  hydrocarbon fluxes, 55(1):255
^{10}Be
  exposure ages, Antarctic moraines, 55(8): 2269
  lunar meteorites, 55(11):3149, 3157
  Meteor Crater, Arizona, age, 55(9):2699
Biomarkers
  dammarenes, marine sediment, 55(11): 3475
  Nonesuch Formation, Precambrian, Michigan, 55(3):911
  pyropheophorbide steryl esters, Black Sea, 55(7):2067

S-rich geomacromolecules, 55(5):1375
steranes, petroleum, source rocks, 55(4): 1065
tetrahymanol, 55(11):3387
Biotite
dating, $^{40}Ar/^{39}Ar$ method, 55(6):1675
diffusion, oxygen, 55(5):1319
Bitumen
effect of weathering, 55(11):3369
Black Sea
biomarker, sediment, 55(7):2067
geochemistry, S, C(org), and Fe, 55(9): 2483
Os, geochemistry, sediment, 55(12):3741
REEs, redox cycling, 55(12):3553
Re geochemistry, sediment, 55(12):3741
sediment ^{210}Pb, 55(1):327
Bolivia
brines, Altiplano, 55(2):687
Boninites
Mariana Forearc, petrogenesis, 55(5):1467
REEs, 55(5):1470
Boron
biogenic carbonates, 55(10):2901
isotope geochemistry, saline lake, 55(9): 2591
Boron, isotope composition
analytical technique, aqueous samples, 55(12):3901
biogenic carbonates, 55(10):2901
brine, Illinois basin, 55(1):313
brine evolution, Dead Sea, Israel, 55(6): 1689
saline lakes, Australia, 55(9):2596
Botswana, Africa
diamonds, Orapa, 55(2):515
Brine
altiplano, Bolivia, 55(3):687
B, isotope composition, Dead Sea, 55(6): 1689
density, pH, Australia, 55(9):2595
ferrolysis, Yilgarn Block, Western Australia, 55(5):1273
formation water, Illinois basin, 55(1):309
pH, definition, measurement, 55(4):1175, 1177

C

Cadium
carbonate, phase equilibria, 55(12):3505
coprecipitation, Mn oxides, 55(9):2435
geochemistry, porewater, 55(1):161
stream water, Sierra Nevada, California, 55(3):707
Weddell Sea, Antarctica, 55(8):2127
Calcite
Ba, foraminifera, 55(11):3321
fractionation, isotopic, O and C, calcite-CO_2, 55(10):2867
loss from shale, weathering, 55(11):3367
Mg, effect of CO_2 and temperature, 55(3): 777
solid solution, $CdCO_3$, 55(12):3505
sorption, metals, divalent, 55(6):1549
Sr, isotope diagenesis, 55(2):505
surface bonding, 55(6):1723
Calcium
complexation, acetate, 55(4):955
^{41}Ca
lunar meteorites, 55(11):3149, 3157
^{48}Ca
carbonaceous chondrites, excess, 55(1): 367
California, USA
Franciscan Complex, 55(7):1875
Mono Lake, gaylussite, 55(6):1743
Monterey Group, 55(7):1875
Pb,Cd, stream water, Sierra Nevada, 55(3):707
U-series dating, corals, 55(12):3709
Carbon
basalt, peridotite, 55(5):1345
cycling, sediment, Buzzards Bay, Massachusetts, 55(10):2989
fractionation, isotopic, calcite-CO_2, 55(10):2867
marine sediment, relation to S and Fe, 55(9):2483
organic, estuaries, New Jersey, 55(12): 3647
organic, sediment, Kau Bay, Indonesia, 55(3):815
sediment, Oslofjord, 55(6):1649
Carbon, isotope composition
amino acids, Murchison, meteorite, 55(3): 905
aragonite, biogenic, abiogenic, Pennsylvania, 55(9):2607
calcite, abiotic marine, Late Devonian, 55(7):1991
carbonate rocks, Neoproterozoic, 55(10): 2887
CO_2, soil, 55(11):3403
diamond, Botswana, 55(2):515
diamonds, South Africa, 55(9):2581, 2615
diamonds, Western Australia, 55(7):1979
graphite, eclogite, Botswana, 55(2):515
limestone, Cambro-Ordovician, 55(10): 2911
meteorites, Antarctic vs. non-Antarctic, 55(1):49
natural gas, Green Tuff Basin, Japan, 55(5):1395
porewater, relation to Cd, 55(1):161
sediment, Kau Bay, Halmahera, Indonesia, 55(3):815
^{14}C
lunar meteorite, MAC88105, 55(9):2681
Meteor Crater, Arizona, age, 55(9):2695
Carbon dioxide
C, isotope composition, soil, 55(11):3403
CO_2-H_2O clathrate, 55(12):3869
diffusion, silicic magma, 55(7):1897
fractionation, isotopic, O and C, CO_2-calcite, 55(10):2867
immiscibility, H_2O-CO_2, 55(9):2417
P-V-T relations, supercritical, 55(11):3191
solubility, basalt melt, 55(11):3467
solubility, tholeiite basalt melt, P and T dependence, 55(6):1587
speciation, glass, 55(12):3879
Carbon monoxide
P-V-T relations, supercritical, 55(11):3191
Carbonaceous chondrites
Allende, fassaite, type B inclusions, 55(9): 2635
chromite, olivine, 55(3):893
classification, compositional, 55(3):881
inclusions, Allende, Rb-Sr, Mg-Al systematics, 55(4):1083
inclusions, plagioclase-olivine, 55(2):581
isotope anomalies, spherules, hibonite-bearing, 55(1):367
Ivuna, polycyclic aromatic hydrocarbons, 55(10):2937
Murchison, corundum, 55(8):2045
noble gases, Allende, acid-resistant residue, 55(6):1709
trace elements, 55(3):886
trace elements, CI, 55(4):1138
Vigarano, FUN inclusion, 55(2):621
Carbonates
B, concentrations, 55(10):2901
effect of drying, heating, annealing and roasting, 55(6):1627
mobility, F, diagenesis, 55(9):2491
U-series dating, 55(2):543
Carlisle Lake, chondrite
group, O isotope composition, 55(9):2657
Cassiterite
O, isotope fractionation, 55(8):2299
Sn, isotope fractionation, 55(2):499
Cattierite
miscibility; pyrite, 55(10):2865
Cerium
oxidation state, marine sediment, 55(9): 2453
redox cycle, Sargasso Sea, 55(10):2737
Cesium
sorption, illite, 55(2):433
volcanic rocks, subduction zones, 55(8): 2379
Chainpur, chondrite
I-Xe dating, trace elements, chondrules, 55(3):861
Chassigny, meteorite
petrogenesis, 55(1):349
Chert
H, isotope composition, 55(10):2985
REE, 55(7):1875
trace elements, 55(7):1875
Chesapeake Bay, USA
planktonic ecosystem, 55(12):3627
Chlorine
basalt, Woodlark Basin, Pacific, 55(8): 2231
diffusion, silicic magma, 55(7):1897
distribution, minerals, hydrothermal fluid, 55(7):1837
^{36}Cl
lunar meteorites, 55(11):3149, 3157
Meteor Crater, Arizona, age, 55(9):2695
Chlorite
distribution, Fe and Mn, with fluid, 55(1): 241
Chondrites
Carlisle Lake-type, O isotope composition, 55(9):2657
chromite, olivine, 55(3):893
Fayetteville, trace elements, 55(11):3407
Inman, noble gases, 55(10):2921
LL3–5, chondrule composition, 55(2):601
Na content, 55(4):935
noble gases, 55(8):2353, 2359
noble gases, Antarctic vs. non-Antarctic, 55(1):59
O, isotope study, 55(8):2317
thermal histories, H group, Antarctic, non-Antarctic, 55(4):1193
Tieschitz, noble gases, 55(10):2921
trace elements, H group, 55(4):1138
trace elements, statistical analysis, 55(1): 19
Chondrules
chemical compositions, 55(4):935
chromite, olivine, 55(3):893

composition, silicates, 55(2):601
I-Xe dating, Semarkona, 55(12):3723
I-Xe dating, trace elements, Chainpur, 55(3):861
texture, effect of bulk composition, melting, 55(10):2943
Chromium
oxidation, Cr(III) to Cr(IV), manganite, 55(10):2861
Chromite
chondrules, chondrites, 55(3):893
O, isotope fractionation, 55(8):2299
Ciliates
source, tetrahymanol, 55(11):3387
Clay minerals
illite, equilibria, aqueous solution, 55(11):3431
stability, illite, 55(5):1353, 1365
Clinopyroxene
distribution coefficients, trace elements, carbonate melt, 55(8):2203
Coal
hydrocarbons, aromatic, titerpenoid-derived, 55(11):3379
Cobalt
cattierite, miscibility with pyrite, 55(10):2851
^{60}CO
radiation source, organic matter, 55(4):1051
Colloids
organic, pore water, 55(5):1309
Complexation
Al(III), goethite, 55(12):3639
Au-chloride, 25–300°C, 55(8):2365
Au-sulfide, 55(8):2121
Au, thiosulfate, hydroxide, chloride, 55(6):1539
cations, acetate, 55(4):955
hydroxyl, Pt^{2+}, Pd^{2+}, 55(7):1759
ion pairs, electrolyte solutions, 55(5):1235
organic electrolytes, 55(7):1781
Pd(II) chloride, 55(5):1253
phthalic acid, goethite, 55(12):3639
REEs, phosphate, 55(10):2729
trace metals, seawater, 55(7):1807
Contact metamorphism
fluid inclusions, McGerrigle Mountains, Quebec, 55(1):169
Copper
Weddell Sea, Antarctica, 55(8):2127
Corals
B, concentration, isotope composition, 55(10):2902
^{234}U, 55(8):2385
U-series dating, TIMS, California, 55(12):3709
Corundum
Murchison, carbonaceous chondrite, 55(7):2045
O, isotope fractionation, 55(8):2299
Cosmic-ray exposure dating
lunar meteorites, 55(11):3153, 3157
Cosmogenic radionuclides
achondrites, Angra dos Reis group, 55(10):2957
lunar meteorites, 55(11):3149, 3157
Crust
evolution, Neoproterozoic, 55(10):2883
lunar crust, composition, 55(11):3105
Crystallites
miscibility, pyrite-cattierite, 55(10):2851

D

Dead Sea, Israel
B, isotope composition, 55(6):1689
Delaware
coastal marsh, Se geochemistry, 55(1):179
Deuterium
see hydrogen, isotope composition
Diagenesis
amino acids, Oslofjord, 55(6):1649
Ce, oxidation state, marine sediment, 55(9):2453
K-feldspar, overgrowths, 55(12):3777
lipids, 55(12):3685
mobility, F, marine sediment, 55(9):2491
O, isotope composition, limestone, 55(10):2911
organic matter, EDGE model, 55(9):2511
organic matter, lipids, eutrophic alkaline lagoon, 55(9):2555
Sr, isotope composition, aragonite, low-Mg calcite, 55(2):505
skeletal carbonates, 55(6):1627
volcanics, Abert Lake, Oregon, 55(10):2781, 2795
Diamond
C, isotope composition, 55(6):1698
C, isotope composition, Botswana, 55(2):515
C, isotope composition, South Africa, 55(9):2615
He, Xe, Western Australia, 55(7):1977
N, concentration, South Africa, 55(9):2615
Nd, Sr, isotope systematics, silicate inclusions, 55(9):2579
noble gases, vapor-growth, 55(7):2011
O, isotope composition, Botswana, 55(2):515
Differential Thermal Analysis (DTA)
$NaCl-H_2O$ system, 6kbar, 55(10):2811
Diffusion
Ar, alkali feldspar, 55(5):1435
Ar, silicate glass, 55(1):211
Cl, silicic magma, 55(7):1897
CO_2, silicic magma, 55(7):1897
divalent cations, melilite, 55(3):751
ionic, electrolyte solution, 25°C, 55(1):113
ions, electrolyte solutions, associated ion species, 55(1):133
O, biotite, muscovite, phlogopite, 55(5):1319
O, grain boundary, quartz aggregates, 55(6):1597
organic species, water, O–n350°C, 55(12):3515
Pb, apatite and zircon, 55(6):1663
^{210}Pb, lake sediment, 55(7):1963
Rb, Sr, alkali feldspar, 55(5):1331
salt, interstitial water, 55(6):1615
water, rhyolite glass, 55(2):441
Diffusion coefficient
calculation, ions, electrolyte solution, 25°C, 55(1):113
Diogenite, achondrite
parent body, mantle, 55(4):1111
Diopside
fluid inclusions, synthetic, H_2O-CO_2, 55(4):1031
Dissolution
albite, surface speciation, 55(8):2193, (11):3273
epidote, 55(11):3273
labradorite, effect of cations, 55(11):3181
olivine, 25°C, 55(4):943
prehnite, 55(11):3273
Distribution coefficient
Ba, plagioclase, 55(1):193
$CaSiO_3$-basaltic melt, 55(8):2089
F, Cl, OH, minerals-hydrothermal fluid, 55(7):1837
garnet-basaltic melt, 55(8):2089
Mg, Mn, Al, V, Cr, Si, in ilmenite, 55(2):462
Mg, Mn, Al, V, Cr, Si, in magnetite, 55(2):462
$MgSiO_3$-basaltic melt, 55(8):2089
Ni, olivine, redox effect, 55(8):2373
pyroxene-high silica rhyolite, 55(6):1575
REE, zircon, 55(11):3299
Sr, plagioclase, 55(1):193
trace elements, clinopyroxene-carbonate melt, 55(8):2203
trace elements, fassaite, 55(9):2647
trace elements, olivine-carbonate melt, 55(8):2203
U, in Fe-Ti oxides, zircon, 55(2):457
DUPAL anomaly
Sea of Japan, volcanic rocks, 55(12):3697

E

East China Sea
residence time, surface water, ^{210}Pb and ^{210}Po, 55(5):1265
Earth
origin, chemical model, 55(4):1159
Eclogite
diamonds, Nd and Sr isotopes, South Africa, 55(9):2579
xenoliths, Botswana, isotope composition, C and O, 55(2):515
Efflorescence
weathering, meteorites, Antarctica, 55(1):67
EDGE (Early diagenetic global explanation)
diagenesis, organic matter, 55(9):2511
Electrolyte solution
supercritical, activity coefficients, 55(5):1235
England
Carnmenellis, groundwater, REEs
Enstatite
fluid inclusions, synthetic, H_20-CO_2, 55(4):1031
Environmental geochemistry
groundwater, connected to polluted river, 55(12):3597
mine tailings, 55(4):965
Epidote
dissolution rate, 55(11):3273
Epimerization
amino acids, snail shells, 55(1):293
Erosion rates
granitic rocks, USA, 55(11):3253
Estherville, mesosiderite
Rb-Sr dating, 55(4):1121
Sm-Nd dating, 55(4):1121
U-Pb dating, 55(4):1121
Estuary
Chesapeake Bay, N, isotope composition, 55(12):3627
Delaware Bay, USA, humic substances, 55(4):979

Hudson River, P, geochemistry, 55(6): 1529
Eucrite
thermoluminescence, 55(12):3831
weathering, Antarctica, trace elements, 55(1):77
Eutrophication
lipid, biogeochemistry, 55(9):2555
Evaporite rocks
fluid inclusions, brine, 55(2):417
Evolution, crustal
Neoproterozoic, Sr isotope composition, seawater, 55(10):2883
EXAFS, extended X-ray absorption fine structure
structure, glass, 55(11):3303

F

Fassaite
Allende, type B refractory inclusions, 55(9):2635
distribution coefficients, trace elements, 55(9):2647
trace elements, 55(9):2642
Fayetteville, chondrite
trace elements, 55(11):3407
Ferrolysis
brine, Yilgarn Block, Western Australia, 55(5):1273
Fission tracks
annealing, fluorapatite, 55(5):1449
Fluid inclusion
analysis, plasma emission spectroscopy, 55(3):917
chemical analysis, brines, Alpine thrust system, 55(4):1021
diopside, synthetic, H_2O-CO_2, 55(4):1031
eustatite, synthetic, H_2O-CO_2, 55(4):1031
forsterite, synthetic, H_2O-CO_2, 55(4):1031
halite, brines, 55(2):417
hydrothermal deposit, Strange Lake, Quebec, 55(11):3443, 3447
NaCl content, determination of, 55(12): 3869
quartz veins, 55(1):241
Raman spectroscopy, 55(1):169, (12): 3885
Rodeo de los Molles, Las Chacras Batholith, Argentina, 55(7):2063, 2065
water loss, quartz, 55(8):2215
Fluorine
distribution, minerals-hydrothermal fluid, 55(7):1837
effect on solubility, $Al(OH)_3$, 55(12):3873
pargasite, richterite, 55(9):2689
Foraminifera
B, concentration, isotope composition, 55(10):2902
Ba, 55(11):3321
Forsterite
fluid inclusions, synthetic, H_2O-CO_2, 55(4):1031
Fossil
biopolymers, 55(8):2253
Fractionation, isotopic
B, biogenic carbonates, 55(10):2901
C, calcite-CO_2, 55(10):2867
C, CO_2 basalt melt, 55(11):3467
C, kimberlite and diamonds, 55(6):1697
exchange reactions, model, 55(7):1953
H, transpiration, 55(11):3391
O, calcite-CO_2, 55(10):2867
O, immiscibility, CO2-H2O, 55(9):2421
O, metal oxides, 55(8):2299
O, transpiration, plants, 55(11):3391
Sn, cassiterite, 55(2):499
France
North Tregor batholith, Armorican massif, 55(6):1675
FUN inclusions, meteorites
Vigarano, 55(2):621

G

Garnet
pyrope, thermodynamic properties, 55(4): 1005
viscosity, melt, 55(4):1011
Gas, volcanic
chemical and isotopic composition, Indonesia, 55(12):3795
Gastropods
B , concentration, isotope composition, 55(10):2902
Gaylussite
Mono Lake, California, 55(6):1743
Geobarometry
hydrothermal solutions, 55(10):2709
Geothermal system
Waiotapu, New Zealand, boiling and dilution, 55(10):2753
Geothermometer
hydrothermal solutions, 55(10):2709
Glass
CO_2 speciation, 55(12):3879
diffusion, Ar, 55(1):211
diffusion, water, 55(2):441
heat capacity, pyrope glass, 55(4):1005
lunar meteorite, MAC88104/5, 55(11): 3094
meteorite impact, noble gases, K-Ar ages, 55(10):2951
Mt. Mazama, Oregon, chemical composition, 55(2):460
solubility, Ar, 55(1):211
spherules, K/T boundary, Haiti, 55(6): 1737
structure, 55(11):3303
transformation, pallagonite, 55(3):731
zhamanshinite, impact melt, 55(5):1483
Zr, structural environment, 55(6):1563
Goethite
adsorption, gold-chloride, gold-thiosulfate ions, 55(3):769
complexation, Al(III), 55(12):3639
complexation, phthalic acid, 55(12):3639
O, isotope composition, 55(9):2627
Gold
adsorption, goethite, 55(3):769
complexation, chloride, 25–300°C, 55(8): 2365
complexation, sulfide, 55(8):2121
complexation, thiosulfate, hydroxide, chloride, 55(7):1539
deposition, fluid immiscibility, 55(9):2417
mobility, supergene environment, 55(6): 1539
Porgera deposit, Papua New Guinea, 55(2):565
solubility, NaCl brine, 250–350°C, 55(8): 2111
speciation, chloride solution, 55(3):671
Granite
ammonium, 55(12):3657
Idaho batholith, weathering, 55(11):3253
petrogenesis, anatectic melting, 55(7): 1859
Pb, isotope composition, 55(1):335
S, geochemistry, South Mountain batholith, Nova Scotia, 55(12):3809
Granulite
fluid inclusions, methane-rich, 55(9):2533
Groundwater
brine, Yilgarn Block, Western Australia, 55(5):1273
contamination, intrusion of river water, 55(12):3597
denitrification, 55(7):1815
REEs, geochemistry, 55(10):2767
tritium-^{3}He dating, 55(10):2895

H

H-chondrites
noble gases, Antarctic vs. non-Antarctic, 55(1):59
Hafnium
isotope composition, zircon, 55(3):849
isotope evolution, 55(3):854
Haiti
spherules, K/T boundary, 55(6):1737
Halite
DTA, at 6 kbar, 55(10):2811
loss, by diffusion, interstitial water, 55(6): 1615
Salado Formation, Ochoan, Delaware basin, 55(2):417
Wellington Formation, Leonardian, Kansas basin, 55(2):417
Hawaii, USA
Kilauea volcano, U-series nuclides, 55(12):3735
Heat capacity
pyrope, 55(4):1005
Helium, isotope composition
diamond, Western Australia, 55(7):1977
^{3}He, decay of ^{3}H, dating groundwater, 55(10):2895
natural gas, Green Tuff Basin, Japan, 55(5):1399
volcanic gases, Indonesia, 55(12):3795
Hematite
O, isotope fractionation, 55(8):2299
Hibonite
spherules, isotope anomalies, carbonaceous chondrites, 55(1):367
Hopanes
sediment and petroleum, 55(11):3333
Hot springs
B, isotope composition, Israel, 55(6):1689
Howardites
thermoluminescence, 55(12):3831
Humic substance
S content, Delaware salt marsh, 55(4):979
Hydrocarbons
aromatic, brown coal, 55(11):3379
carbonaceous chondrite, Ivuna, 55(10): 2937
degradation, microbial, 55(7):1903
fluid inclusions, 55(12):3885
fluxes, Beaufort Sea, Canada, 55(1):255
hopanes, 55(11):3333
pyrolysis, kerogen, algal, 55(1):275
sediment, coastal Peru, 55(2):483

Hydrochloric acid
dissociation constant, 300–600°C, 55(4): 989
Hydrogen
P-V-T relations, supercritical, 55(11):3191
tritium-^{3}He dating, groundwater, 55(10): 2895
Hydrogen, isotopic composition
amino acids, Murchison, meteorite, 55(3): 905
brine, Illinois basin, 55(1):313
brine, Yilgarn Block, Western Australia, 55(5):1277
organic matter, chert, 55(10):2985
water vapor, transpired, 55(11):3391
Hydrolysis
Pt^{2+} and Pd^{2+}, 55(7):1759
Hydrothermal system
chemical composition, mid-ocean ridge, 55(12):3559
sediment, marine, surface morphology, 55(11):3459
silica, geochemistry, 55(9):2467

I

I-Xe dating
chondrules, Chainpur, 55(3):861
chondrules, Semarkona, 55(12):3723
Iceland
palagonite, origin, 55(3):731
Idaho, USA
Idaho batholith, weathering, 55(11):3253
Illinois
brines, subsurface, Illinois basin, 55(1): 309
Illinois basin, loss, halite, 55(6):1615
Illite
Cs, sorption, 55(2):433
equilibria, aqueous solution, 55(11):3231
stability, aqueous solution, 55(5):1353, 1365
Ilmenite
distribution coefficients, Mg, Mn, Al, V, Cr, Si, 55(2):462
O, isotope fractionation, 55(8):2299
Immiscibility, silicate liquids
quartz-fayalite-leucite system, 55(3):761
Impact melt
Aouelloul, noble gases, K-Ar dating, 55(10):2951
Libyan Desert, noble gases, K-Ar dating, 55(10):2951
lunar meteorite, ALHA81005, 55(11): 3019
lunar, Apollo 16, 55(11):3019
lunar meteorite, MAC88105, 55(11):3019, 3031
spherules, Haiti, 55(6):1737
Zhamanshin, noble gases, K-Ar dating, 55(10):2951
zhamanshinite, blue, 55(5):1483
Immunological assay
fossil biopolymers, 55(8):2253
India
barite deposits, stratiform, Precambrian, 55(1):303
Indonesia
Banda arc, 55(12):3795
Kau Bay, Halmahera, 55(3):815
Sunda arc, 55(12):3795
Inductively-Coupled-Plasma-Mass-Spectrometry (ICP-MS)
^{230}Th, determination, 55(7):2075
Infra-red reflectance
meteorites, weathered, Antarctic vs. non-Antarctic, 55(1):89
Inman, chondrite
noble gases, acid-resistant fraction, 55(10): 2921
^{129}I
chondrules, Chainpur, 55(3):861
Ion microprobe
corundum, Murchison, 55(8):2045
trace elements, pyroxene-glass, 55(6):1575
Iridium
distribution, Fe-Ni-S system, 55(1):245
distribution coefficient, sulfide liquid-basalt, 55(9):2545
negative-ion mass spectrometry, 55(1):397
Iron
complexation, on goethite, Al(III), phthalic acid, 55(12):3639
distribution, chlorite-fluid, 55(1):241
FeS_2, formation, FeS precursor, 55(6): 1505
FeS_2, nucleation, aqueous solution, 55(6): 1495
marine sediment, relation to S, and C(org), 55(9):2483
sediment, Kau Bay, Halmahera, Indonesia, 55(3):815
Ironstone
O, isotope composition, 55(9):2627
Isochron
U-series method of dating, 55(2):555
Isotopomer
sulfate ions, 55(6):1609
Israel
Dead Sea, B isotopes, 55(6):1689
Negev Desert, 55(1):293, (11):3355
Italy
Tuscan magmatic province, 55(12):3657
Ivuna, carbonaceous chondrite
hydrocarbons, polycyclic, aromatic, 55(10):2937

J

Japan
Green Tuff Basin, natural gas, 55(5):1395
Japan Sea, 55(9):2453

K

K-feldspar
^{40}Ar/^{39}Ar dating, overgrowths, 55(12): 3777
K-T boundary
spherules, Haiti, 55(6):1737
Kansas, USA
Wellington Formation, 55(2):425
Karoonda, carbonaceous chondrite
classification, trace elements, 55(3):881
Kerogen
effect of weathering, 55(11):3369
formation, source rocks, oil shale, 55(4): 1041
molecular structure, 55(8):2259
porphyrin concentration, 55(12):3893
pyrolysis, hydrocarbons, S-compounds, 55(1):275
Kimberlite
C, isotope fractionation, 55(6):1697
South Africa, 55(9):2579, 2615
Kinetics
amino acid raemization/epimerization, 55(11):3355
denudation, silicate minerals, natural environment, 55(5):1306, (11):3253
dissolution, albite, 555(11):3273
dissolution, Ba/$PbSO_4$, 25 and 60°C, 55(10):3531
dissolution, epidote, 55(11):3273
dissolution, prehnite, 55(11):3273
dissolution, quartz, organic electrolyte solutions, 55(7):1781
dissolution, silicate minerals, 55(5):1305
dissolution, UO_2, 55(3):647
growth, fluorapatite, 55(5):1219
isotope-exchange reactions, 55(7):1953
oxidation, pyrite, seawater, 55(12):3665
racemization, amino acids, effect of melanoidins, 55(12):3669
thermal degradation, oxalate species, 55(6):1515
oxidation, Cr(III) to Cr(IV), manganite, 55(10):2861
oxidation, pyrite, 55(2):471
oxidation, sulfite, seawater, 55(3):677

L

Labradorite
dissolution, 55(11):3181
surface, weathered, 55(3):787
Lakes
B, isotope geochemistry, Australia, 55(9): 2591
Lansfordite
weathering, meteorites, Antarctica, 55(1): 67
Laser
^{40}Ar/^{39}Ar dating, biotite, 55(6):1675
^{40}Ar/^{39}Ar dating, K-feldspar, 55(12):3777
^{40}Ar/^{39}Ar dating, sedimentary rocks, Barberton greenstone belt, South Africa, 55(7):1933
C, O, isotope composition, limestone, 55(9):2607
plasma emission spectroscopy, 55(3):917
Raman spectroscopy, Au-chloride complexation, 55(8):2365
Lead
diffusion, apatite and zircon, 55(6):1663
dissolution kinetics, $PbSO_4$, 55(12):3531
stream water, Sierra Nevada, California, 55(3):707
Weddell Sea, 55(8):2127
Lead, isotope composition
alkali felspars, 55(8):2309
boninites, Mariana forearc, 55(6):1471
Estherville, mesosiderite, 55(4):1123
fluid inclusions, quartz, Pyrenees, 55(4): 1026
granites, anatectic melting, 55(1):335
Porgera gold deposit, Papua New Guinea, 55(2):574
volcanic rocks, Sea of Japan, 55(12):3702
zircon, Precambrian, Canada, 55(11): 3437
Lepidocrocite
reduction, nitrite, by Fe(II), 55(5):1289
LEW86010, achondrite
Pu-Xe, gas retention age, 55(10):2957
LEW87051, achondrite
Pu-Xe, gas retention age, 55(10):2957
Limestone
C, O, isotope composition, Pennsylvanian, 55(9):2607

isotope composition, Sr, O, C, Late Devonian, 55(7):1991
Linear Sweep Voltammetry (LSV)
reduction potential, silicate melt, 55(10): 2831
Lipids
biogeochemistry, hypereutrophic alkaline lagoon, 55(9):2555
Lithium
brine, Illinois basin, 55(1):313
Low-Energy Electron Diffraction (LEED)
calcite surface, 55(6):1723
carbonaceous matter, peridotite, basalt, 55(5):1345
Luna
soil, Luna 24, geochemistry, 55(11):3061, 3067

M

MAC88104, lunar meteorite
consortium, 55(11):2999–3180
REE, 55(11):3067
trace elements, 55(11):3043
MAC88105, lunar meteorite
consortium, 55(11):2999–3180
REEs, 55(11):3067
trace elements, 55(11):3043, 3079
Magma
diffusion, CO_2, Cl, 55(7):1897
Mars, composition, water content, 55(1): 349
Magnesium
complexation, acetate, 55(4):955
^{26}Mg
Allende, carbonaceous chondrite, inclusions, 55(4):1083
carbonaceous chondrites, depletion, 55(1): 367
corundum, Murchison, 55(7):2048
FUN inclusion, Vigarano, 55(2):621
inclusions, plagioclase-olivine, carbonaceous chondrites, 55(2):581
Magnetite
distribution coefficient, Mg, Mn, Al, V, Cr, and Si, 55(2):462
O, isotope fractionation, 55(8):2299
Maine, U.S.A.
organic acids, forest floor, 55(12):3611
Manganese
distribution, chlorite-fluid, 55(1):241
hydrothermal plume, TAG site, 55(11): 3209
hydrothermal sediment, Pacific, 55(11): 3459
oxidation products, 55(9):2435
Manganese nodules, marine
Os, 55(6):1641
Os, isotope composition, 55(5):1426
Manganite
oxidation, Cr(III) to Cr(IV), surface, 55(10):2861
Mantle
chemical composition, 55(8):2083
composition and dynamics, 55(8):2083
early differentiation, consequences, 55(1): 227
Os, isotope composition, 55(5):1421
partitioning, trace elements, olivine and cpx-carbonate melt, 55(8):2203
REEs, 55(8):2087
trace elements, 55(4):1138, (8):2087
Marcasite
formation, aqueous solution, 55(6):1505
formation, mechanism, hydrothermal, 55(12):3491
nucleation, aqueous solution, 55(6):1495
Mariana Islands
boninites, petrogenesis, 55(5):1467
Mars
Chassigny, petrogenesis, 55(1):349
Marsh, coastal
Delaware Bay, S, humic substance, 55(4): 979
Se, geochemistry, 55(1):179
Mass spectrometry
B, isotopic composition, 55(12):3901
ion-probe mass spectrometry, S, isotope composition, 55(2):525
negative ion, Pt-group metals, 55(1):397
Massachusetts, USA
Buzzards Bay, 55(10):2989
Melilite
diffusion, divalent cations, 55(3):751
Melt, silicate
anatectic melting, peraluminous rocks, 55(7):1859
CO_2, solubility, basalt, 55(6):1587, (11): 3467
reduction potential, 55(10):2831
viscosity-temperature relation, 55(3):721, (4):1011
Zr, structural environment, 55(6):1563
Metamorphism
granulite metamorphism, Cs loss, 55(8): 2379
parent body, meteorites, 55(2):601
shock, ordinary chondrites, 55(11):3845
Metasomatism
Moon, lunar highlands, 55(10):2965
Meteorites
ALHA881005, lunar meteorite, cosmogenic radionuclide, 55(11): 3149
Allende, fassaite, type B inclusions, 55(9): 2635
Allende, noble gases, 55(6):1709
Angra dos Reis, gas retention, cosmic-ray exposure ages, 55(10):2957
achondrites, Antarctic vs. non-Antarctic, 55(1):35
Al-Mg isotope systematics, Allende, inclusions, 55(4):1083
amino acids, Murchison, 55(3):905
Antarctic vs. non-Antarctic, 55(1):3
aqueous alteration, Semarkona, 55(12): 3723
C, isotope composition, 55(1):19
chondrules, composition, 55(2):601
chromite, olivine, chondrules, 55(3):893
classification, carbonaceous chondrites, 55(3):881
diogenites, mantle, parent body, eucrite, 55(4):1111
Estherville, mesosiderite, Rb-Sr, U-Pb, Sm-Nd, 55(4):1121
eucrites, Antarctica, weathering, 55(1):77
falls vs. finds, 55(1):99
Fayetteville, chondrite, trace elements, 55(11):3407
FUN inclusion, Vigarano, 55(2):621
I-Xe dating, chondrules, Chainpur, 55(3): 861
impact melt, zhamanshinite, 55(5):1483
inclusions, plagioclase-olivine, carbonaceous chondrites, 55(2):581
iron meteorites, S isotope composition, 55(9):2671
isotope anomalies, carbonaceous chondrites, 55(1):367
Ivuna, carbonaceous chondrite, hydrocarbons, 55(10):2937
LEW86010, 87051, Pu-Xe, gas-retention ages, 55(10):2957
lunar, ALHA81005, 55(11):3019
lunar, MAC88104, 55(11):2999–3180
lunar, MAC88105, 55(9):2681, (11): 2999–3180
lunar, Y793274, barringerite, 55(4):1173, (11):3009
lunar, Y86032, 55(11):3009
Martian, Chassigny, petrogenesis, 55(1): 349
mass distribution, Antarctic vs. non-Antarctic, 55(1):105
Murchison, carbonaceous chondrite, corundum, 55(7):2045
noble gases, Antarctic vs. non-Antarctic, 55(1):59
O, isotope study, ordinary chondrites, 55(8):2317
Rb-Sr dating, Allende, inclusions, 55(4): 1083
Semarkona, I-Xe dating, chondrules, 55(12):3723
shock metamorphism, ordinary chondrites, 55(12):3845
thermal histories, 55(3):893
thermal histories, Antarctic, non-Antarctic, 55(4):1193
thermoluminescence, 55(11):3167, (12): 3831
trace elements, carbonaceous chondrites, 55(3):886
trace elements, chondrules, Chainpur, 55(3):864
trace elements, ordinary chondrites, 55(1): 19
ureilites, diamonds, 55(7):2011
ureilites, Sm-Nd, Rb-Sr dating, 55(3):829
weathering, Antarctica, 55(1):67, 99
Xe and Ne, Inman and Tieschitz, acid-resistant residue, 55(10):2921
Meteorite impact craters
Meteor Crater, Arizona, age, 55(9):2695
Methane
fluid inclusions, granulite, Rogaland, Norway, 55(9):2533
hydrothermal plume, TAG site, 55(11): 3209
P-V-T relations, supercritical, 55(11):3191
Michigan, USA
Nonesuch Formation, organic geochemistry, 55(3):911
Microcline
$^{40}Ar/^{39}Ar$ dating, cooling histories, 55(5): 1435
diffusion, Ar, 55(5):1435
Pb, isotopic heterogeneity, 55(8):2309
Mid-ocean ridges
hot springs, mineral-ion equilibria, 55(12):3559
silica, geochemistry, 55(9):2467
TAG site, Mn and CH_4, 55(11):3209
Mississippi river
trace elements, outflow region, 55(11): 3241

Missouri, USA
Viburnum Trend, origin, 55(5):1407
Mixing
unmixing, compositional data, 55(8):2351
Modeling
anatectic melting, 55(7):1859
determination of NaCl, fluid inclusions, 55(12):3869
diagenesis, EDGE model, 55(9):2511
diamonds, C isotope composition, 55(6):1704
differentiation, mantle, 55(1):227
diffusion, ion pairs, electrolyte solutions, 55(1):133
diffusion, ions, electrolytes, 55(1):113
diffusion, ^{210}Pb,lake sediment, 55(7):1969
diffusion coefficient, aqueous organic species, 55(12):3515
equilibrium constants, high T and P, 55(7):1769
fluxes, F, Sr, and Ca, diagenesis, carbonate sediment, 55(9):2501
hydrothermal solutions, 55(10):2709
isotope-exchange reactions, 55(7):1953
magma ocean hypothesis, 55(11):3031
melting, sediment, isotope composition, Pb, 55(1):335
mobility, ^{210}Pb, sediment, Black Sea, 55(1):330
molecular dynamics, gases, 55(11):3191
molecular dynamics, water, 55(1):381
molecular orbital calculation, 55(11):3453
origin of Earth, 55(4):1159
origin of the Moon, 55(4):1135
oxidation, sulfide, sediment, 55(1):145
petrogenesis, Martian rocks, 55(1):356
Sr, Nd, in seawater, 55(10):2889
trace metal enrichment, seawater, 55(8):2184
transport, silica, hydrothermal system, 55(9):2467
viscosity-temperature relation, silicate melt, 55(3):721
vitrinite, maturation kinetics, 55(2):639
Molecular dynamics
gases, supercritical, 55(11):3191
Molecular orbital calculations
$H_6Si_2O_7$, 55(11):3453
Mollusc shells
racemization/epimerization, amino acid, 55(11):3355
Mono Lake, California
gaylussite, 55(6):1743
Moon
basalt, Apollo 17, Sr and Nd, isotope compositions, 55(7):2025
composition, lunar meteorites, 55(11):3123
crust, composition, 55(11):3105
highlands, ferroan region, 55(11):3051
Imbrium basin, age, 55(8):2339
lunar meteorite, ALHA81005, 55(11):3019
lunar meteorite, MAC88104, 55(11):2999–3180
lunar meteorite, MAC88105, 55(9):2681, (11):2999–3180
lunar meteorite, Y793274, 55(4):1173, (11):3009
lunar meteorites, Y86032, 55(11):3009
metasomatism, lunar highlands, 55(10):2965
origin, chemical model, 55(4):1135
petrology, lunar meteorites, MAC88104 and MAC88105, 55(11):3037
origin, lunar meteorites, 55(11):3123
regolith breccia, 55(11):3073
trace elements, bulk Moon, 55(4):1138
Mount Narryer, Australia
Hf, isotope composition, zircon, 55(3):854
Murchison, carbonaceous chondrite
amino acids, isotope composition, 55(3):905
corundum, O and Mg isotope compositions, 55(7):2045
Muscovite
diffusion, oxygen, 55(5):1319
thermodynamic parameters, 300–600°C, 55(4):989

N

Natural gas
C, isotope geochemistry, Green Tuff Basin, Japan, 55(5):1395
Nd, isotope composition
basalt and andesite, Blackburn Hills volcanic field, Alaska, 55(12):3762
basalt, lunar, Apollo 17, 55(7):2027
basalt, Siberia, 55(4):1183
boninites, Mariana forearc, 55(5):1472
differentiation, mantle, 55(1):227
Estherville, mesosiderite, 55(4):1129
inclusions, in diamonds, South Africa, 55(9):2581
Maloin Ranch pluton, Wyoming, 55(8):2289
Porgera gold deposit, Papua New Guinea, 55(2):572
volcanic rocks, Sea of Japan, 55(12):3701
Neon
acid-resistant residues, Inman and Tieschitz, 55(10):2911
impact glasses, 55(10):2951
Nesquehonite
weathering, meteorites, Antarctica, 55(1):67
New Brunswick, Canada
Heath Steele mine, sulfide tailings, 55(4):965
New Jersey, USA
trace elements, off-shore water, 55(12):3647
New Mexico, USA
Otero County, limestone, 55(9):2607
Salado Formation, 55(2):417
New York, USA
Hudson River, estuary, 55(6):1529
New Zealand
Waiotapu, geothermal system, 55(10):2753
Nickel
partitioning, olivine, redox effect, 55(8):2373
Weddell Sea, Antarctica, 55(8):2127
Nitrogen
denitrification, groundwater, 55(7):1815
diamonds, South Africa
sediment, Oslofjord, 55(6):1649
Nitrogen, isotope composition
amino acids, Murchison, meteorite, 55(3):905
plankton, Chesapeake Bay, 55(12):3627
Noble gases
acid-resistant residues, Inman and Tieschitz, 55(10):2921
achondrites, Angra dos Reis group, 55(10):2963
chondrites, 55(8):2355
diamonds, vapor-growth, 55(7):2011
diamonds, Western Australia, 55(7):1977
impact glasses, 55(10):2951
lunar meteorites, MAC88104/5, 55(11):3139
meteorites, Antarctic, non-Antarctic, 55(1):59
phase Q, Allende residue, 55(6):1709
solubility, diffusion, Ar, glass, 55(1):211
Northwest Territories, Canada
Shaler Group, Neoproterozoic, Sr, isotope composition, 55(10):2883
Norway
Oslofjord, diagenesis, 55(6):1649
Rogaland, fluid inclusions, 55(9):2533
Nova Scotia, Canada
South Mountain batholith, 55(12):3809
Nuclear Magnetic Resonance
CO_2 speciation, glass, 55(12):3879
molecular structure, kerogen, 55(8):2259

O

Ocean Drilling Program (ODP)
REE geochemistry, Japan Sea Leg 127, 55(9):2453
Oceans
Ba content, changes with time, 55(11):3321
chemical composition, 55(11):3223
U, geochemistry, 55(7):1799
Oil shale
kerogen, origin, 55(4):1041
Oklahoma, USA
Arbuckle Group, limestone, 55(10):2911
Olivine
chondrules, chondrites, 55(3):893
chondrules, texture variation, 55(10):2943
dissolution, 25°C, 55(4):943
distribution coefficients, trace elements, carbonate melt, 55(8):2203
inclusions, carbonaceous chondrites, 55(2):581
Ni, partitioning, redox effect, 55(8):2373
Ontario, Canada
Plastic Lake, soil formation, 55(5):1295
Optical spectroscopy
speciation, Pd(II) chloride, 55(5):1253
Ordinary chondrites
trace elements, statistical analysis, 55(1):19
weathering, Antarctic, 55(1):67
Ore deposits
Au, mobility, supergene environment, 55(6):1539
deposition, metals, fluid immiscibility, CO_2-H_2O, 55(9):2417
Hualgayoc district, Peru, 55(3):525
mine tailings, environmental geochemistry, 55(4):965
Porgera gold deposit, Papua New Guinea, 55(2):565
Rodeo de los Molles, Argentina, 55(7):2063, 2065
Strange Lake, Quebec, Zr, Y, REE, 55(11):3443, 3447

Viburnum Trend, Missouri, Sr isotope constraints, 55(5):1407
Oregon, USA
Abert Lake, weathering and diagenesis, 55(10):2781, 2795
Crater Lake, 55(2):457
Organic acids
amino acids, 55(1):293, (6):1649, (11):3355, (12):3669
dissolution, olivine, 55(4):943
dissolution, quartz, 55(7):1781
forest floor, Maine, 55(12):3611
ionization constants, 55(7):1785
phthalic acid, complexation, goethite, 55(12):3639
Zn acetate complexes, stability, 55(9):2401
Organic compounds
alkylbenzenes, petroleum, Tarragona Basin, Spain, 55(12):3677
dammarenes, sediment, 55(11):3475
diffusion, water, 0–350°C, 55(12):3515
dithianes, immature sediment, 55(12):3685
hopanes, 55(11):3333, 3387
hydrocarbons, aromatic, triterpenoid-derived, 55(11):3379
melanoidins, 55(12):3669
porphyrin content, kerogen, 55(12):3893
tetrahymanol, source of, 55(11):3387
Organic matter
degradation, microbial, 55(7):1903
diagenesis, 55(9):2511
H, isotope composition, chert, 55(10):2985
irradiation, gamma rays, 55(4):1051
loss from shale, weathering, 55(11):3369
S, geochemistry, marine sediment, 55(12):3581
Orthoclase
diffusion, Rb, Sr, 55(5):1331
Osmium
distribution, Fe-Ni-S, 55(1):245
geochemistry, marine sediment, Black Sea, 55(12):3741
marine sediment, 55(6):1641
Osmium, isotope composition
mantle-derived rocks, 55(5):1421
marine sediment, 55(6):1646
negative-ion mass spectrometry, 55(1):397
sediment, Black Sea, 55(12):3742
Oxalic acid
oxalate species, thermal degradation, 55(6):1515
Oxidation
Cr(III) to Cr(IV), manganite, 55(10):2861
Mn, presence of Cd, 55(9):2435
pyrite, by vibrational spectroscopy, 55(6):1609
Oxygen
diffusion, grain boundary, quartz aggregates, 55(6):1597
diffusion, micas, 55(5):1319
fractionation, isotopic, calcite-CO_2, 55(10):2867
fractionation, isotopic, metal oxides, 55(8):2299
P-V-T relations, supercritical, 55(11):3191
Oxygen, isotope composition
aragonite, biogenic and abiogenic, Pennsylvanian, 55(9):2607
brine, Illinois basin, 55(1):313
brine, Yilgarn Block, Western Australia, 55(5):1277
calcite, abiotic, marine, Late Devonian, 55(7):1991
carbonate rocks, Neoproterozoic, 55(10):2887
diamond, Botswana, 55(2):515
goethite, 55(9):2657
limestone, Cambro-Ordovician, 55(10):2911
ordinary chondrites, 55(8):2317
water vapor, transpired, 55(11):3391

P

Pb-Pb method of dating
zircon, single, Abitibi greenstone belt, Canada, 55(11):3437
^{210}Pb
diffusion, lake sediment, 55(7):1963
sediment, Black Sea, 55(1):327
surface water, East China Sea, Yellow Sea, 55(5):1265
Pacific Ocean
Woodlark Basin, basalt, 55(8):2231
Palladium
distribution, Fe-Ni-S system, 55(1):245
distribution coefficient, sulfide liquid-basalt, 55(9):2545
hydrolysis, Pd^{2+}, 55(7):1759
speciation, Pd(II) chloride, 55(5):1253
Pallagonite
Iceland, origin, 55(3):731
Papua New Guinea
Porgera gold deposit, sources of metals, 55(2):565
Parent bodies, meteorite
eucrite, chemical and petrologic data, 55(4):1111
metamorphism, 55(2):601
regolith evolution, 55(11):3407
Pargasite
stability, high pressure, 55(9):2689
Partition coefficient
see: Distribution coefficients
Pelecypods
B, concentration, isotope composition, 55(10):2902
source, hydrocarbons, Beaufort Sea, 55(1):255
Peridotite
carbonaceous matter, 55(5):1345
Peru
geochemistry, S, off-shore sediment, 55(12):3581
hydrocarbons, alcohols, coastal sediment, 55(2):483
S, isotope composition, sulfide ore, 55(2):533
Petrogenesis
basalt, high-Ti, lunar, Apollo 17, 55(7):2025
basalt, Siberia, Nd-Sr isotopes, 55(4):1183
boninites, mariana forearc, 55(5):1467
DUPAL anomaly, volcanic rocks, Sea of Japan, 55(12):3697
NaTi basalt, Woodlark Basin, Pacific, 55(8):2231
ureilites, achondrites, 55(11):3417
volcanic rocks, Blackburn Hills volcanic field, 55(12):3753
Petroleum
alkylbenzenes, Tarragona Basin, Spain, 55(12):3677
Amposta crude oil, Tarragona Basin, alkylbenzenes, 55(12):3677
degradation, microbial, 55(7):1903
hopanes, 55(11):3333
speciation, S, 55(3):801
steranes, occurrence, 55(8):2391
pH
definition, brines, 55(4):1175, 1177
pore water, oxidation of sulfide, 55(1):145
Phlogopite
diffusion, oxygen, 55(5):1319
Phosphate
complexation, REEs, 55(10);2729
Phosphoria Retort Shale
organic matter, ^{60}Co-irradiation, 55(4):1051
Phosphorus
geochemistry, tidal Hudson River, 55(6):1529
Plagioclase
distribution coefficient, Ba, Sr, 55(1):193
inclusions, carbonaceous chondrites, 55(2):581
Plankton
N, isotope composition, Chesapeake Bay, 55(12):3627
Plant
isotope composition, water, transpiration, 55(11):3391
Plasma emission spectroscopy
laser-produced, fluid inclusions, 55(3):917
Platinum
analysis, AMS, *in situ*, 55(8):2241
distribution, Fe-Ni-S system, 55(1):245
distribution coefficient, sulfide liquid-basalt, 55(9):2545
hydrolysis, Pt^{2+}, 55(7):1759
Platinum Group Elements
distribution, Fe-Ni-S system, 55(1):245
distribution, sulfide liquid-basalt melt, 55(9):2545
marine sediment, 55(6):1643
Porgera gold deposit, Papua New Guinea, 55(2):576
Plutonium
achondrites, 55(10):2957
^{244}Pu-Xe dating
achondrites, Angra dos Reis group, 55(10):2957
^{210}Po
surface water, East China Sea, Yellow Sea, 55(5):1265
Porewater
C, isotope composition, 55(1):161
Cd geochemistry, 55(1):161
organic colloids, 55(5):1309
pH gradients, oxidation of sulfide, 55(1):145
U, geochemistry, 55(7):1800
Porphyrin
vanadyl, lake sediment, 55(1):389
Portlandite
solubility, 100–350°C, 500 bars, 55(3):659
K-Ar dating
chondrules, Semarkona, 55(12):3726
impact glasses, 55(10):2951
Prehnite
dissolution rate, 55(11):3273

Protein
immunological assays, 55(8):2253
Pyrenees, Spain
brine composition, fluid inclusions, 55(4):1021
Pyrite
formation, aqueous solution, 55(6):1505
formation, mechanism, hydrothermal, 55(12):3491
loss from shale, weathering, 55(11):3369
miscibility, pyrite-cattierite, 55(10):2851
nucleation, aqueous solution, 55(6):1495
oxidation, 55(6):1609
oxidation, neutral pH, 55(2):471
oxidation kinetics, seawater, 55(12):3665
sorption, divalent cations, 55(8):2159
synthesis, polysulfides, 55(10):2839
Pyrolysis
kerogen, algal, 55(1):275
Pyroxene
distribution coefficients, trace elements, clinopyroxene-carbonate melt, 55(8):2203
viscosity, melt, 55(4):1011

Q

Quartz
dissolution, organic-rich aqueous solution, 55(7):1781
fluid inclusions, Pyrenees, 55(4):1021
fluid inclusions, water loss, 55(8):2215
Quebec, Canada
Abitibi greenstone belt, Pb-Pb dating, single zircon, 55(11):3437
McGerrigle Mountains, 55(1):169
Strange Lake, Labrador, 55(11):3443, 3447
Waite Amulet mine, sulfide tailings, 55(4):965

R

Racemization
amino acids, snail shells, 55(1):293
Radium
basalt, Kilauea, Hawaii, 55(12):3735
Raman spectroscopy
complexation, Au-chloride, 25–300°, 55(8):2365
fluid inclusions, 55(1):169, (12):3885
gold chloride solution, 55(3):671
Rare Earth Elements
basalt and andesite, Blackburn Hills volcanic field, Alaska, 55(12):3756
boninites, 55(5):1470
Ce, anomaly, Sargasso Sea, 55(10):2981
chert, 55(7):1875
complexation, phosphate, 55(10):2729
cycling, Black Sea, 55(12):3553
eolian dust, 55(8):2147
fassaite, Allende, 55(10):2642
groundwater, England, 55(10):2767
lunar meteorite, MAC88104/5, 55:(11):3043, 3061, 3079, 3095, 3107, 3124
metasediments, Mt. Narryer, Western Australia, 55(7):1919
ore deposit, Rodeo de los Molles, Argentina, 55(7):2063, 2065
Sargasso Sea, 55(10):2737
shale, 55(9):2527
Strange Lake, Quebec, ore deposit, 55(11):3443, 3447
ureilites, achondrites, 55(11):3417
zircon, 55(11):3287
Red Sea
salt diffusion, 55(6):1615
Reduction
Ni, effect on partitioning in olivine, 55(8):2373
nitrite, Fe(II) dependent, 55(5):1289
REEs, Black Sea, 55(12):3553
Reflectance spectroscopy
porphyrin content, kerogen, shale, 55(12):3893
Rhenium
geochemistry, marine sediment, Black Sea, 55(12):3741
negative-ion mass spectrometry, 55(1):397
Rhodium
distribution, Fe-Ni-S system, 55(1):245
Rhyolite
diffusion, water, 55(2):441
Richterite
stability, high pressure, 55(9):2689
Rift
Midcontinent, North America, 55(3):911
Rubidium
diffusion, alkali feldspar, 55(5):1331
Rb/Sr ratio, volcanic rocks, 55(8):2379
Rb-Sr dating
basalt, lunar, Apollo 17, 55(7):2028
cooling rates, diffusion, Rb, Sr, 55(5):1331
Estherville, mesosiderite, 55(4):1121
metasediments, Mt. Narryer, Western Australia, 55(7):1922
ureilites, meteorites, 55(3):829
Ruthenium
distribution, Fe-Ni-S system, 55(1):245
Rutherford backscattering (RBS)
diffusion study, Pb, apatite and zircon, 55(6):1663
Rutile
O, isotope fractionation, 55(8):2299

S

Salars
Altiplano, Bolivia, 55((3):687
Sm-Nd dating
basalt, lunar, Apollo 17, 55(7):2028
Estherville, mesosiderite, 55(4):1121
garnet, inclusions, diamond, Finsch mine, S. Africa, 55(9):2586
metasediments, Mt. Narryer, Western Australia, 55(7):1923
ureilites, meteorites, 55(3):829
Sargasso Sea
REEs, Ce redox cycles, 55(10):2737
Sargur Group, India
barite, stratiform, Precambrian, 55(1):303
Scandium
eolian dust, 55(8):2147
Scanning tunneling microscopy (STM)
surface morphology, hydrothermal sediment, 55(11):3459
Sea of Japan
DUPAL anomaly, volcanic rocks, 55(12):3697
Seawater
Ba, variation with time, 55(11):3321
Ce, anomaly, Sargasso Sea, 55(10):2981
composition, chemical and isotopic, Late Devonian 55(7):1991
diffusion, ion pairs, 55(1):133
diffusion, ions, 55(1):113
distribution pattern, chemical elements, 55(11):3223
fluorapatite, growth, 55(5):1219
Mg content, calcite, 55(3):777
organic carbon, estuaries, 55(12):3647
oxidation, sulfite, 55(3):677
oxidation kinetics, pyrite, 55(12):3665
^{210}Pb, East China Sea, Yellow Sea, 55(5):1265
Permian, chemical composition, 55(2):417
^{210}Po, East China Sea, Yellow Sea, 55(5):1265
REEs, Black Sea, 55(12):3555
Sr, isotopic commposition, Neoproterozoic, 55(10):2883
trace elements, estuaries, New Jersey, 55(12):3647
trace metals, deep-ocean water, 55(7):1807
trace metals, Gulf of Cadiz, Spain, 55(8):2173
trace metals, Weddell Sea, 55(8):2127
U, geochemistry, 55(7):1799
Sediment, estuarine
cycling, C, Buzzards Bay, Massachusetts, 55(10):2989
diagenesis, amino acids, mineralization, C and N, 55(6):1649
euxenic, C and S geochemistry, Kau Bay, Indonesia, 55(3):815
Sediment, lacustrine
diagenesis, weathering, volcanic rocks, Abert Lake, Oregon, 55(10):2781, 2795
diffusion, ^{210}Pb, 55(7):1963
Sediment, marine
biomarkers, Black Sea, 55(7):2067
dammarenes, 55(11):3475
dithianes, 55(12):3685
eolian dust, Pacific, 55(8):2147
geochemistry, S, C(org), and Fe, 55(9):2483
hopanes, 55(11):3333
organic colloids, porewater, 55(5):1309
Os, 55(6):1641
Os, geochemistry, Black Sea, 55(12):3741
oxidation kinetics, pyrite, 55(12):3665
Re, geochemistry, Black Sea, 55(12):3741
REEs, Japan Sea, 55(9):2453
S, geochemistry, organic-rich, Peru margin, 55(12):3581
steranes, occurrence, 55(8):2391
^{230}Th, ICP-MS determination, 55(7):2075
trace elements, 55(7):1875
trace elements, Black Sea, 55(12):3744
Sediment, metal-rich
surface morphology, 55(11):3459
Selenium
geochemistry, coastal marsh, Delaware, 55(1):179
Semarkona, chondrite
I-Xe dating, chondrules, 55(12):3723
Serpentinite
TAG site, Atlantic Ocean, 55(11):3209
Shale
porphyrin content, kerogen, 55(12):3893
REEs, 55(9):2527

weathering, effect on kerogen, 55(11): 3369
Shock
achondrites, 55(12):3831
diamonds, noble-gas content, 55(7):2011
ordinary chondrites, 55(12):3845
Siberia, USSR
basalt, petrogenesis, Nd-Sr isotopes, 55(4): 1183
Silica
geochemistry, hydrothermal system, mid-ocean ridge, 55(9):2467
Si, isotope composition
FUN inclusion, Vigarano, 55(2):621
SIMS (Secondary ion mass spectrometry)
Hf, zircon, 55(3):849
Snails
racemization, amino acids, Negev Desert, Israel, 55(1):293
Sodium
chondrules, meteorites, 55(4):935
Soil
C, isotope composition, CO_2, 55(11):3403
formation, acidified watershed, Plastic Lake, Ontario, 55(5):1295
organic acids, forest, Maine, 55(12):3611
Solar nebula
history, record, chondrules, 55(2):601
Solubility
Al hydroxide, 55(12):3873
Au, NaCl brine, 250–350°C, 55(8):2111
CO_2, basalt melt, 55(6):1587, (11):3487
hydroxides, Pd and Pt, 55(7):1759
portlandite, 55(3):647
quartz, organic electrolyte solutions, 55(7):1781
sphalerite, 55(9):2683, 2685
talc, 55(10):2819
UO_2, 55(3):647
Sorption
Au, on goethite, 55(3):769
cations, divalent, with pyrite, 55(8):2159
chemical elements, seawater, 55(11):3223
Cr(III), manganite, oxidation, 55(10):2861
Cs, on illite, 55(2):433
metals, divalent, on calcite, 55(6):1549
trace elements, seawater, 55(7):1807
South Africa
Barberton greenstone belt, $^{40}Ar/^{39}Ar$ dating, 55(7):1933
Finsch kimberlite, 55(9):2579
Jagersfontein kimberlite, 55(9):2615
Kimberley, 55(9):2579
Koffiefontein kimberlite, 55(9):2615
Spain
Gulf of Cadiz, 55(8):2173
Peña Negra Complex, anatectic melting, 55(7):1859
Santa Olalla Lagoon, 55(9):2553
Tarragona Basin, petroleum, 55(12):3677
Sphalerite
solubility, 55(9):2683, 2685
Spherules
hibonite-bearing, carbonaceous chondrites, 55(1):367
K/T boundary, Haiti, 55(6):1737
Spinel
O, isotope fractionation, 55(8):2299
Statistical analysis
confidence interval, thermodynamic constants, 55(12):3543
hydrocarbon fluxes, Beaufort Sea, 55(1): 255
trace elements, meteorites, 55(1):19
unmixing, compositional data, 55(8):2351
Steranes
Nonesuch Formation, Precambrian, Michigan, 55(3):911
petroleum, source rocks, identification, 55(4):1065
sediment and petroleum, 55(8):2391
Strontium
brine, Illinois basin, 55(1):313
diffusion, alkali feldspar, 55(5):1331
distribution coefficient, plagioclase, 55(1): 193
Sr, isotope composition
Allende, inclusions, carbonaceous chondrite, 55(4):1083
aragonite, biogenic, 55(2):505
barite, Precambrian, India, 55(1):303
basalt and andesite, Blackburn Hills volcanic field, Alaska, 55(12):3762
basalt, lunar, Apollo 17, 55(7):2027
basalt, Siberia, 55(4):1183
boninites, 55(5):1471
brine, Illinois basin, 55(1):313
brine, Yilgarn Block, Western Australia, 55(5):1277
calcite, low-Mg, 55(2):505
calcite, marine, abiotic, Late Devonian, 55(7):1991
carbonates, Shaler Group, NWT, Canada, 55(10):2883
Estherville, mesosiderite, 55(4):1126
fluid inclusions, quartz, Pyrennes, 55(4): 1026
inclusions, in diamonds, S. Africa, 55(9): 2581
limestone, Cambro-Ordovician, 55(10): 2911
Maloin Ranch pluton, Wyoming, 55(8): 2289
Porgera gold deposit, Papua New Guinea, 55(2):572
sulfide minerals, Viburnum Trend, Missouri, 55(5):1410
Viburnum Trend, Missouri, 55(5):1410
volcanic rocks, Sea of Japan, 55(12):3701
Subduction
Mariana forearc, boninites, 55(5):1467
Rb/Cs fractionation, 55(8):2379
Sulfide
mine tailings, 55(4):965
pyrite, synthesis 55(10):2839
Sulfur
biomarkers, bituminous shale, 55(5):1375
geochemistry, granitoids, South Mountain batholith, Nova Scotia, 55(12):3809
geochemistry, organic-rich sediment, 55(12):3581
heterocyclic S-compounds, pyrolysis, kerogen, 55(1):275
humic substance, 55(4):979
marine sediment, relation to C(org), Fe, 55(9):2483
sediment, euxenic, Kau Bay, Indonesia, 55(3):815
speciation, petroleum, 55(3):801
sulfite oxidation, seawater, 55(3):677
Sulfur, isotopic composition
barite, Precambrian, India, 55(1):303
iron meteorites, 55(9):2671
marine sediment, 55(12):3589
metasedimentary rocks, Meguma Group, Nova Scotia, 55(12):3714
sediment, Kau Bay, Halmahera, Indonesia, 55(3):815
sulfide minerals, Peru, 55(2):533
secondary ion mass spectrometry, 55(2): 525
Surface Analysis by Laser Ionization (SALI)
carbonaceous matter, basalt, peridotite, 55(5):1345
hydrothermal sediment, STM (scanning tunneling microscopy), 55(11):3459
Surface chemistry
calcite, 55(6):1723
dissolution, labradorite, 55(11):3181
speciation, albite, dissolution, 55(8):2193
pyrite, 55(8):2159
Switzerland
Glatt River, 55(12):3597
Syenite
zircon, REE distribution, 55(11):3287

T

TAG site, mid-Atlantic ridge
hydrothermal plume, 55(11):3209
Talc
solubility, 500–700°C, 2 kbar, 55(10): 2819
Texas, USA
Salado Formation, 55(2):417
Thermodynamics
activity coefficients, ion pairs, electrolyte solutions, supercritical, 55(5):1235
$CdCO_3$-$CaCO_3$-CO_2-H_20 system, 25°C, 1 atm, 55(12):3505
confidence interval, thermodynamic constants, 55(12):3543
equilibria, illite-aqueous solution, 55(11): 3431
equilibrium constants, high T and P, 55(7):1769
Gibbs free energy, Al species, 55(12): 3873, 3875
Gibbs free energies, silicate minerals, 25°C, 55(4):996
heat capacity, pyrope, 55(4):1005
hydrolysis constants, Pt^{2+}, Pd^{2+}, 55(7): 1759
hydrothermal solution, mineral-solution equilibrium, 55(10):2709
miscibility, pyrite-cattierite, 55(10):2851
NaCl-H_2O system, 6 kbar, 55(10):2811
Na_2O-K_2O-CaO-MgO-FeO-Fe_2O_3-Al_2O_3-SiO_2-H_2O-HCl system, 55(12):3559
stability, illite, aqueous solution, 55(5): 1353, 1365
stability constants, Zn acetate, 55(9):2401
Thermoluminescence
diogenites, 55(12):3831
eucrites, 55(12):3831
howardites, 55(12):3831
mesosiderites, 55(12):3831
meteorites, 55(11):3167, (12):3831
Thorium
eolian dust, 55(8):2147
ore deposit, Rodeo de los Molles, Argentina, 55(7):2063, 2065
Th^{4+}, structure of glass, 55(11):3303
^{230}Th
basalt, Kilauea, Hawaii, 55(12):3735

corals, California, 55(12):3709
determination, ICP-MS, 55(7):2075
Tieschitz, chondrite
noble gases, acid resistant residue, 55(10): 2921
Tin, isotopic composition
cassiterite, Greenbushes pegmatite, Western Australia, 55(2):499
Titanium
isotope composition, corundum, Murchison, 55(7):2051
^{50}Ti
basalt and andesite, Blackburn Hills volcanic field, Alaska, 55(12):3756
carbonaceous chondrites, excess, 55(1): 367
Trace elements
aerosol, Antarctic Peninsula, 55(7):1827
chert, 55(7):1875
chondrites, H group, 55(4):1138
chondrules, Chainpur, 55(3):865
chondrules, Semarkona, 55(12):3725
chromite, chondrules, meteorites, 55(3): 896
CK group, carbonaceous chondrites, 55(3):886
corundum, Murchison, carbonaceous chondrite, 55(7):2045
deep-ocean water, 55(7):1807
estuaries, New Jersey, 55(12):3647
fassaite, Allende, 55(9):2642
Fayetteville, chondrite, 55(11):3407
fluid inclusions, quartz, Pyrenees, 55(4): 1021
granitoid rocks, Nova Scotia, 55(12):3816
Gulf of Cadiz, Spain, 55(8):2173
hydrothermal sediment, 55(11):3461
lunar meteorites, MAC88104/5, 55(11): 3043, 3079, 3095, 3107, 3124
mantle, 55(8):2087
metasediments, Mt. Narryer, Western Australia, 55(7):1918
meteorites, eucrites, Antarctica, 55(1):77
Mississippi River delta, 55(11):3241
Moon, bulk, primitive, 55(4):1138
olivine, chondrules, meteorites, 55(3):897
ordinary chondrites, statistical analysis, 55(1):19
partitioning, olivine and cpx-carbonate melt, 55(8):2203
seawater, 55(11):3223
sediment, Black Sea, 55(12):3744
upper Mantle, Earth, 55(4):1138, 1165
ureilites, achondrites, 55(11):3417
Transmission electron microscopy (TEM)
surface, labradorite, weathered, 55(3):787
weathering, volcanic rocks, Abert Lake, Oregon, 55(10):2781
Triterpane
Nonesuch Formation, Precambrian, Michigan, 55(3):911
Tritium-^{3}He dating
groundwater, 55(10):2895

U

Ulvöspinel
O, isotope fractionation, 55(8):2299
Uranium
distribution coefficient, Fe-Ti oxides, zircon, 55(2):457
geochemistry, oceans, 55(7):1799
UO_2, dissolution kinetics, 55(3):647
U-Pb dating
Estherville, mesosiderite, 55(4):1121
zircon, 55(3):856
zircon, Narryer Gneiss Complex, Western Australia, 55(7):1915
U-series isotopes and dating
basalt, Kilauea, Hawaii, 55(12):3735
corals, TIMS, California, 55(12):3709
carbonates, impure, total-sample dissolution, 55(2):543
corals, 55(8):2385
isochron method, total-sample dissolution, 55(2):555
USSR
Siberia, basalt, petrogenesis, 55(4):1183
Ureilites (meteorites)
diamonds, noble gases, 55(7):2011
Sm-Nd, Rb-Sr dating, 55(3):829
trace elements, 55(11):3417

V

Vibrational spectroscopy
oxidation, pyrite, 55(6):1609
Viscosity
pyroxene, garnet melt, 55(4):1011
silicate melt, temperature dependence, 55(3):721
Vitrinite reflectance
kinetics, vitrinite maturation, model, 55(2):639

W

Water
diffusion, glass, rhyolite, 55(2):441
isotopic composition, vapor, transpiration, 55(11):3391
supercritical, PVT relations, 55(1):381
Weathering
effect on water chemistry, 55(11):3253
meteorites, Antarctica, 55(1):67, 89
shale, 55(11):3369
surface, labradorite, 55(3):787
volcanics, Abert Lake, Oregon, 55(10): 2781
Western Australia
diamonds, noble gases, 55(7):1977
Narryer Gneiss Complex, 55(7):1915
Yilgarn Block, brine, geochemistry, 55(5): 1273
Whitlockite
origin, lunar highlands, 55(10):2965
Wyoming, USA
Maloin Ranch pluton, 55(8):2285

X

X-ray absorption spectroscopy (XAS)
X-ray absorption near-edge structure (XANES)
speciation, S, petroleum, 55(3):801
X-ray photoelectron spectroscopy (XPS)
calcite surface, 55(6):1723
carbonaceous matter, peridotite, basalt, 55(5):1345
surface, labradorite, weathered, 55(3):787
Xenolith
zircon, REE distribution, 55(11):3287
Xenon
acid-resistant residue, Inman and Tieschitz 55(10):2921
chondrites, 55(8):2355, 2359
chondrules, Chainpur, 55(3):861
diamond, Western Australia, 55(7):1977

Y

Yellow Sea
residence time, surface water, ^{210}Pb and ^{210}Po, 55(5):1265
Yttrium
Strange Lake, Quebec, ore deposit, 55(11):3443, 3447

Z

Zhamanshinite
blue color, origin, 55(5):1483
Zinc
acetate complexes, stability constants, 55(9):2401
sphalerite, solubility, 55(9):2683, 2685
Weddell Sea, Antarctica, 55(8):2127
Zirconium
structural environment, glass, melt, 55(6): 1563
Zircon
diffusion, Pb, 55(6):1663
distribution coefficient, U, 55(2):457
Hf, isotope composition, 55(3):849
Pb-Pb method of dating, Abitibi greenstone belt, Canada, 55(11):3437
Strange Lake, Quebec, ore deposit, 55(11):3443, 3447
U-Pb dates, Narryer Gneiss Complex, Western Australia, 55(7):1915
zonation, 55(11):3287

Reproduced with the permission of Pergamon Press Inc., by University Microfilms Inc. Duplication or resale without permission is prohibited.